22 Q. Would you agree that SBC should not be

1 allowed to dictate other carriers' use of the SBC
2 outside loop plant?
3 A. Let me answer that this way. If we are
4 talking about a CLEC's use of copper pairs and one
5 CLEC wants to put IDSL on a pair and another CLEC
6 wants to put POTS on an adjacent pair, and those are
7 accepted forms of transmission that can occupy those
8 pairs compatibly, next to each other, then I don't
9 think there ought to be any dictating with regard to
10 how those pairs are used in that compatible kind of a
11 manner.
12 I think maybe what Mr. Bowen is asking me
13 is, in the case of the Project Pronto architecture,
14 those facilities need to be utilized very carefully.
15 Because what you have on that shared ATM facility for
16 one customer could impact the type of service that's

able to be provided to other customers that are served over that platform.

Q. When you say that -- we will get there more towards the end of this testimony -- you are talking here about the different ATM quality of service classes like unspecified bit rate and constant

bit rate; are you not?

A. Yes, sir.

Q. Just so this part of the record is clear, you are saying that constant bit rate, permanent versus circuits, take up more bandwidth than unspecified bit rate PVCs do; is that right?

A. Yes, sir, they do.

Q. And you talked about that a little bit later in your testimony, haven't you?

A. Yes, sir, but I raise that point at this point in your questioning because in terms of -- I

hate to use the word "dictate" -- but in terms of SBC being able to specify what types of service a CLEC can provide on a quote, unquote loop facility, there are some conditions in the Pronto architecture that need to be looked at carefully.

Q. Let's stick more narrowly, not talk about constant bid rate versus unspecified bid rate yet. Let's just talk about unspecified bid rate which is what you are offering up as the wholesale Broadband Service, right?

A. So far.

Q. So far. That's one of the ATM quality of service classes, isn't it?

A. Yes, sir, that's correct.

Q. And you can use this to support ADSL-based services, internet access basically, right?

That's one of the things you can support with that?

A. One of the things you can support with that, yes.

Q. Now, I take it that it will support all of the throughput functionality of ADSL, right?

A. It being the Project Pronto architecture?

Q. The unspecified bit rate fiber transport, ATM fiber transport peace of the architecture will support what ADSL can offer, right?

A. Yes, sir.

Q. What ADSL can offer, given the short enough loop, is what? Roughly eight megabits downstream by about one upstream?

A. And perhaps a little less upstream, like maybe 800 or whatever kilobits upstream, but, yes, that's pretty close.

Q. I appreciate that answer and that

clarification. Let's just call it an eight by one connection, okay?

A. Yes, sir.

Q. Now, are you proposing and what you are offering us, the wholesale Broadband Service, are you proposing to offer us an unspecified bit rate PVC that will support eight by one ADSL?

A. I believe that that's -- yes, I believe that's correct. In other words, what I am trying to say is, when we make the service available to you, you can specify profiles for individual end users that -- and each profile would relate to a retail service you might offer, and you can offer different combinations of up and downstream bandwidths or bit rates. Yes, if you wanted to -- well, actually, let me also add to that. I believe that the traffic engineering, so to speak, for the Project Pronto architecture presumed a nominal downstream bandwidth for all the ADSL users of 1.5 megabits. So I think that may be more nearly the answer to your question.

Q. Well, let me refer you again to the May 24 version of the Accessible Letter offering the

wholesale Broadband Service. Nevermind, I won't do that.

Is it fair to say that you would agree that the limits on permanent virtual circuits provided in an unspecified bit rate ATM quality service class -- I apologize for all of the acronyms -- but that's what you are offering us here, that is, the limits of that should be the technical limits of that service and not any other non-technical limitation?

A. I believe that would be correct.

Q. For example, you would agree that it wouldn't be appropriate to limit Rhythms if it wanted to buy the wholesale Broadband Service to the maximum rate that, say, AADS might want to offer at retail?

A. I totally agree with you there. You should be able to offer what ADSL speeds that the system is capable of handling, I should say, the platform is capable of handling, irrespective of what

AADS offers.

Q. Good. Now, am I correct that right now SBC is in technical trials for voice-over ADSL services?

293

A. I believe that we are looking at that technology. I don't personally know of whether that would be a real customer technical trial. I believe we have got it in a laboratory.

Q. I think you do, okay. And just so we are clear, this is not POTS. This is derived voice channels on the ADSL bandwidth, right?

A. Yes, sir, that's correct.

Q. And it will be handled just like a data signal running back over the ATM fiber and OCD and so forth; is that correct?

A. Yes, sir that's correct.

Q. Separately from the ATM POTS side of that

architecture; is that correct?

A. Correct.

Q. Now, first of all, you need to have your vendors support that technology, right? You can't deploy unless you have got something to deploy?

A. That's correct.

Q. And your vendor is Alcatel, right?

A. For the most part, as we described earlier.

294

Q. So you have Alcatel equipment in the labs right now testing voice-over DSL, right?

A. I'm not sure whose equipment it is for -- I'm sorry, let me back up. I think we are looking at that technology. I would assume that if Alcatel has a product that plugs into the Litespan remote terminal, that we would be looking at that, too. I am not

personally familiar with the details of that testing that's going on for that technology.

Q. Well, you are the Pronto guy that we have got so I will get as far as I can with you.

A. Okay.

Q. Well, let's assume that Alcatel does have equipment that's compatible with your Alcatel Litespan DLCs and will support voice-over DSL?

A. Okay.

Q. Let's assume that your trial is successful and you agree that it works, okay? Can you agree with that hypothetical?

A. Yes, I can.

Q. Keep those two in mind. Now, I take it given your earlier answer that we should be able to

use -- the limit on our use should be the technology

limits, that you would then agree that if Rhythms wanted to deploy Alcatel voice-over equipment, you would say that's okay with us.

A. Let me clarify that. It's not a blank check, so to speak, on that because earlier we were talking about all the capabilities of unspecified bit rate and whether a CLEC ought to be able to use those to its fullest capabilities.

When you go to voice-over DSL, because you can't tolerate much delay with voice conversation or else it would sound really strange, then voice-over DSL is generally regarded as requiring constant bit rate ATM quality of service class, and that is something that even though it may technologically work, I mean, all the piece parts that are made by the manufacturer may work just fine. Before we can just automatically say yes, anybody that would like to use this ought to be able to use this immediately, we want to be able to determine whether this is going to have an impact on the capacity of our remote terminal, and that there is no other degradation as I have explain

in my testimony caused to other users of that shared bandwidth in that fiber pipe between the remote terminal and the central office.

Now, we are looking at constant bit rate as a future offering for the Broadband Service. And if we can, working with the vendors and the CLECs, determine a way to make this work, then it will be rolled out on an RT by RT basis, you know, the capability to provide that type of service.

Q. Well, why don't we just flip back now to your detailed recitation of that point? I think it's back in your surrebuttal at 32 or so.

A. I'm sorry, do you mean my rebuttal?

Q. Rebuttal 32 and 33, you have the ATM quality service classes discussed. Do you see that?

A. Yes, sir.

Q. And the next page 33 you are talking about using other ATM quality of service classes besides unspecified bit rate can result in, as you put

it, significant portions of the total bandwidth be allocated to some DSL end users and, therefore, less of a total bandwidth capacity being available for the

remainder of the users. Do you see that?

A. Yes, sir, that's correct.

Q. And I think in your surrebuttal testimony you have got some further response on page 5 of the same issue. That's Mr. Clausen. Do you see that?

A. Yes, I do.

Q. And here you are saying that using unspecified bit rate quality of service class assumptions and a nominal downstream bandwidth of 1.5 megabits, you can get 672 separate DSL end users from a bandwidth. Do you see that?

A. Yes, sir, I do.

Q. And then you assert that if everybody has CDR, it would cut the capacity to a hundred end users.

Do you see that?

A. At a 1.5 megabit bandwidth for each of those CDR users, that's correct. That was our estimate.

Q. Well, I take it that all your discussion here is assuming that you don't somehow increase the throughput capacity of the DLC and the fiber transmission bit rate back to the office; isn't that

fair?

A. That is fair, and that's part of what would have to be looked at in terms of being able to accommodate CDR in the future.

Q. So you are looking here at your assumed separate fiber running OC-3c capacity back to the OCD, right?

A. Yes, sir.

Q. And that OC-3c has a transmission rate of

155 megabits per second, right?

A. Yes, sir.

Q. And that 155 megabits transmission, that's how you figured it out; you took that capacity and said, okay, UBR at 1.5 megabits, I can get 672 of those in there; is that right?

A. In fact, you can probably get a little bit more than 672, but 672 is the physical slot capacity of one of the RT configurations that we are deploying.

Q. What is that? Three channel banks?

A. That is three channel banks, yes, sir.

Q. There is nine channel banks in the RT,

right?

A. Yes, sir. But I need to clarify something else that you were referring to before. Where I got down to the 100 end users under CBR, CBR is a fixed bandwidth. It is not a function of end

users vying for that or, you know, competing for that same bandwidth in that pipe. But CBR, each end user is guaranteed a fixed amount of bandwidth, so that's a fairly straight-forward calculation to figure out how many end users you could get in that pipe.

Q. You mean a fixed bandwidth just like the fixed bandwidth on the TDM side with a 8 by 64 channel?

A. Well, on the TDM side there is a time slot interchange --

Q. It is a fixed bandwidth on the TDM side, isn't it?

A. Once a call is established on the TDM side, yes, it is a fixed bandwidth.

Q. And the CDR is a fixed bandwidth?

A. That's correct, but a much larger bandwidth, obviously.

Q. I should be able to get that as a UNE then because it's a fixed bandwidth, right, as opposed to these unspecified ATM?

A. It still doesn't have the same interface specifications as the OCD end of the service.

Q. I thought we were close on that. But that's a fixed bandwidth; we have got that right?

A. For that particular DLS class, that's correct.

Q. Now, but you aren't limited to a hundred end users really, are you? You could say, okay, I want to take my Alcatel 2000 with two outgoing OC-3s, technically one OC-3c and one OC-3, and make it a 2012 and have four OC-3s, right?

A. That's not how the 2012 works. The way the 2012 is built by Alcatel is there are in fact four OC-3s. One is destined to be for the OC-3c data, and the second is the OC-3 for the voice, and the other two OC-3s are available for other high speed services that end user customers may desire. Those port on that SONET. That built in SONET multiplexing capability in the 2012 is not, as I understand it, not

directly usable by the data channel banks.

Q. I don't think that's right, Mr. Lube. I want you to check that overnight with me. My understanding is that, of the four OC-3s, three of them can be used for data and one TDM for voice. Can you check that?

A. I tell you, I think I do stand corrected on that. Because what I described to you is the way the 2012 is to be initially deployed. And let me clarify my answer by saying, we are not deploying 2012s which cost more money to deploy. We are not deploying those unless we already have other high capacity bandwidth for those other OC-3s. If we have other -- I say bandwidths -- other capacity demand for those other OC-3s, if we have demand from other customers or other kinds of services for those other OC-3s, then they are no longer available to be used for additional OC-3cs for the Litespan. Now, if we

don't have other uses for those, then I agree with you, technically they can be used, at least that's my understanding from the Alcatel product.

Q. What I am trying to get you to agree with

me is that a hundred user constraint that you are identifying on page 5 of your surrebuttal testimony only is a constraint if you assume no move from an Alcatel 2000 to a 2012. If you assume you can move from a 2012, you get more capacity for throughput, right?

A. Well, I might explain that if the desire was to obtain more OC-3cs between the RT and the central office of OCD equipment, there are other ways to do that besides upgrading to a 2012. If there is fibers that are available between the CO and the RT, additional OC-3cs could be established on additional fiber strands. It would not have to be a 2012

upgrade. The electronics is much more expensive than the last.

Q. Okay. So how many more -- how many total OC-3cs or just OC-3s in general can Alcatel 2000 support, given unlimited fibers? How many?

A. Each data -- each channel bank within the RT that's used for DSL, in other words, used for data, has one output on it. So depending on how many data channel banks you have in that RT, if you have three

in that RT, then three would be the most.

Q. And what if you have more than three? There is nine channel banks, right?

A. Oh, you mean more -- well, okay. If you are talking about a cabinet, not a CEV or a hut, you know, a small building, then the current electronic equipment that we have from Alcatel today puts out an amount of heat such that the most data that you can

get in that nine channel bank configuration, just as a for instance, is three.

Q. So given that current constraint, you could say with a current Alcatel 2000, I am going to have one OC-3 for the TDM POTS traffic, if you will, and three OC-3cs for data, right?

A. Ultimately, you could.

Q. So you don't even need to go 2012, right?

A. That was my point a minute ago, yes, sir.

Q. And if you did that, you would get additional throughput capacity on a constant bit rate type quality of service class, right?

A. You could withstand more of it than you could with a single OC-3c.

Q. Is it linear? Would you -- if you had three instead of one, could you triple your capacity?

A. That's exactly what I was going to add

is, just as a benchmark we could say that if you have CBR at 1.5 megabit, current end use, and you had three OC-3cs, then yes -- let's say 300, that's still a lot smaller than the 672 that the slots have capacity for in that three channel bank configuration or three data channel bank configuration that we are talking about.

Q. But, again, we are talking about technology that could be deployed in a line-sharing configuration, aren't we? The voice-over DSL using the ATM technology we are talking about can be deployed in a line-sharing configuration; is that right?

A. Well, let me explore that with you. If a customer wants voice-over DSL and wants voice-under DSL, so to speak, I guess if they wanted both of those, I assume technologically you could line-share that.

Q. Okay. I want to make sure that we are talking about something that is within the scope of

this case and you are agreeing with this. This technology we are talking about can be used in a line-sharing configuration?

A. Over the copper part, yes. But remember my testimony clearly states that my position is that line sharing only occurs over the copper, not over the fiber part of the platform.

Q. And I had almost forgotten that but thank you for recalling that.

A. Happy to do so.

Q. Let's talk about your assertion on page 3 and 4 where you are responding to Ms. Murray. You are asserting here that it's not -- it's technically impossible -- that's your words here on page 4 -- to combine voice and data signals on the same fiber using the NGDLC equipment, the NGDLC system, to deploy Project Pronto. Do you see that?

MR. BINNIG: In the rebuttal testimony?

MR. BOWEN: I'm sorry, rebuttal.

A. Yes, I do. I am referring to the varying equipment that we are deploying unless it is a 2012.

Q. Let's talk about that. Isn't it correct

that the Alcatel Litespan 2000 equipment you are deploying is capable -- whether you have chosen to deploy it that way or no -- is capable of combining the ATM bit stream and a TDM bit stream on a single set of fibers by using two different transmit frequencies, that is the 1300 series nanometer frequency and a 1550 series nanometer frequency, and in fact have two different channels on the same fiber going back; isn't that a fact?

A. It is a fact that Alcatel makes that capability. It requires additional equipment to make or to use that capability. I would liken it to an example like this. If I go buy a Ford Explorer without a towing package, I am not going to pull a very big load with that Ford Explorer. I have chosen

to buy the Ford Explorer without that capability.

All I am saying in this instance is our equipment does not -- our deployment of Project Pronto does not have the additional Alcatel equipment that would be required to do wave length division multiplexing, just as you described it.

Q. But Alcatel is willing to selling that to you, aren't they? It's available right now?

A. Oh, they would like a lot more money from us, if they could get it.

Q. Is that a yes?

A. Mr. Bowen, it is just not cost effective for us to use that additional equipment and pay that additional cost. You asked me if they would like to sell it to me or would sell it to me. Of course, they would if I wanted to buy it.

Q. Is it available right now in the marketplace?

A. I understand it's available from them right now, but it is not cost effective for our deployment to use that additional equipment.

Q. You have chosen not to go that route and instead have chosen your version, for the reasons that you gave, to use separate fibers for the voice and data signals; is that right?

A. Yes, sir. There is no technical need or reason to put them on the same fibers. So as to avoid that extra cost we are using separate fibers for the voice and data.

Q. Okay. So I can't decide whether your testimony on page 4 is just wrong or very clever. You say it's technically impossible to combine the voice

and data signals on the same fibers. It's not, is it?

A. I said using the NGDLC system deployed in the Project Pronto. I didn't qualify that answer. As I said elsewhere in my testimony, I agree with your sentence that it is technically feasible to put voice and data over the same piece of glass. That is absolutely feasible. But you cannot make equipment that's not bought and equipped to do that do that thing. It won't do what it can't do.

Q. So if I can translate this, this sentence here, it's not impossible; in fact, it's offered in the marketplace to have voice and data ride the same fiber, but your particular choice of deployment didn't do it that way. So given that, it's impossible; is that a fair statement?

A. That's exactly what I mean, yes, sir. But I might add that there was no sinister reason to choose to put these signals on separate pieces of glass. We were trying to make a cost effective

deployment of this equipment.

Q. Well, don't you use this as one of the chief reasons as to why we can't get a UNE? Because it's on separate fibers?

A. I guess.

Q. So there can't be line sharing?

A. I guess there is a lot of to do about something, I am not sure what it is. But, I mean, even if it's on the same fiber, it's our position that that's not an HFPL or there is no HFPL on the fiber.

I mean, let's go back to what the FCC established. They said on the Line-sharing Order that on a copper loop -- and they are very explicit about that in paragraph 26 and in 51-319(h)(1), they are very specific that that is a copper loop. And so what we are saying is, or what the FCC said was, if you have a copper loop and you define the HFPL on that copper loop, that HFPL is a UNE. What I am trying to say is, whether it's ten fibers or one fiber in the fiber part of that system, that's not an HFPL UNE as

21 defined by the FCC.

22 Now, if this Commission would like to

1 establish a fiber analogy to that unbundled HFPL, I
2 believe, as we discussed a little while ago, that if
3 they perform a necessary and impair analysis, and
4 subject to SBC's appeal as however we think that
5 whatever would be appropriate, then, yes, that could
6 be done. But what we are deploying is not an FCC HFPL
7 UNE in any way, shape or form, one fiber, two fibers,
8 tenfibers.
9 Q. Don't you use the fact that you have
10 chosen to deploy the voice and data on separate fibers
11 as one of the many reasons why we can't have this as a
12 UNE?
13 A. I have used this in my testimony only to
14 explain that we cannot physically fiber share, if I

may coin that term, voice and data signals on the same fibers because the equipment won't do it. The equipment that we have deployed won't do it. Even if we did do that, it would still not be line sharing. Line sharing is on a copper loop. The FCC specifically said at Footnote 27 that it was not even addressing fiber-fed digital loop carrier in the Line-sharing Order.

311

Q. Let's talk about that for a second. That's the bottom of page 4, right? You, in fact, quote that and you give us a Footnote 27 citation, right?

A. Yes, sir, I sure did.

Q. Now, so you are saying that the FCC didn't consider whether or not line sharing was feasible on fiber-based systems, right?

A. They did not -- they did not address it, undertake an analysis about it, define anything about

it, no, sir.

Q. But SBC knew about Project Pronto during the comment cycle in the line-sharing case at the FCC, right? You knew you were going to be deploying it?

A. It was being looked at in early 1999, I believe, is when the analysis began. I think that's right, subject to check, either '98 or '99. I can't remember what year they started to look at that.

Q. Wasn't the famous investor briefing announcement October 1998?

A. No, sir.

Q. In '99?

312

A. Yes, sir.

Q. Wasn't the planning cycle for and all of the financial roll-ups performed at least six to nine month before that?

A. That's why I said I believe early '99.

That was my best guess of when that started.

Q. So in plain English, you knew about Project Pronto during the comment cycle of the Line-sharing case, right? Not you, but Ameritech and the SBC did?

A. I'm not sure what that's accomplishing to make that observation because --

Q. Well, that's my issue. Didn't you know about Pronto when you were writing your comments to the FCC on line-sharing?

MR. BINNIG: I object to the foundation. I don't know if he has established that Mr. Lube wrote the comments on line-sharing.

MR. BOWEN:

Q. Mr. Lube, didn't Ameritech know, didn't SBC know, about its plan to deploy Pronto when the FCC was writing its comments on line-sharing?

A. I suppose that the two happened on parallel tracks.

Q. Did SBC disclose its plan at that point to deploy Pronto architecture in it comments?

A. I don't recall.

Q. It didn't, did they?

A. I have no idea.

Q. Okay. Well, the FCC Order doesn't preclude a conclusion, as you read it, that line-sharing is possible over fiber-based transmission systems, does it? It just doesn't address it?

A. Well, they specifically define it as copper. I don't recall ever seeing a paragraph that said no regulatory agency can look at line-sharing quote, unquote over fiber. No, I don't recall seeing that.

Q. Okay. Well, isn't it true that at the time that you were negotiating with the common carrier bureau at the FCC with respect to the merger conditions that were going to apply to the SBC/Ameritech merger, you were in the process of planning your Project Pronto?

A. Those two were going on at the same time as well, yes, that's correct.

Q. So you would agree with FCC Commissioner Furchtgott-Roth's statement, I am quoting here, "It is worth noting that at the time the bureau was engaged with SBC in negotiating the merger conditions, SBC was in the process of planning its roll-out of Project Pronto," does that sound right to you? This is the waiver order.

A. Okay, I mean, if that's what it says.

Q. Does it sound like it's accurate to you?

A. Well, you just asked me the question if I thought they were going at the same time and I answered yes, they probably were.

Q. When were those negotiations happening?

A. With the merger order?

Q. Yes.

A. I suspect during the summer of '99.

That's just my recollection. I don't believe, in my mind, that there is any sinister desire to relate our particular choice of how many fibers to use for Project Pronto to have anything to do with explicitly

or even implicitly with merger conditions or -- I mean, this is an architecture that was studied to see what would be the most cost effective way to roll-out this capability for end users to be able to obtain DSL services. If you are exploring something beyond that, I can't imagine what you are trying to establish with that.

Q. I am just asking a few simple questions, Mr. Lube.

A. And I am trying to answer them as best I can.

Q. Okay. Come back with me please to your rebuttal testimony at page 7. And you are talking

here again in the context of the transcript, you are talking here about what you call voluntary commitments and whether those commitments precluded Ameritech from retiring any of the existing copper loop plant. Do you see that?

A. Yes, I do.

Q. And I take it that there is some conditions under which the existing loop plant that's there can be retired when you deploy Pronto; is that a

fair conclusion to draw from this part of your testimony?

A. Let me answer you this way. For the first year, in other words through September of 2001, we are not, by the FCC's recent Project Pronto order, allowed to retire any mainframe-terminated copper except unless as required by an act of God. If there

are these other conditions that I have described in the middle section of page 7 that exist, we have to find other ways to work around those issues and still continue to provide customer service for that first year.

Q. I read that. And then you have got a five percent cap through September of 2003; is that right?

A. Yes, sir, that's correct.

Q. And that's at the bottom of page 7, top of page 8; is that right?

A. That's correct.

Q. I want to talk about what happens post September 2003 when those two conditions are not there any more. That's right, isn't it, those commitments

and those conditions are no longer in effect as of September of 2003?

A. Those specific limits are no longer in

effect as of 2003.

Q. So then the ones that are on page 7, lines 6 through 18 kick in, right?

A. As necessary and as economic to the business.

Q. Well, isn't it a fact that fiber is a lot cheaper to maintain than copper facilities?

A. Generally, yes, but you won't place fiber for just any length of loop facility. There are distances where copper is still the more economic choice, even taking into consideration maintenance, ongoing maintenance.

Q. Well, didn't the SBC investor briefing say that the $6 million in investment in Project Pronto would be completely recovered by maintenance savings on a present value basis?

A. I believe it referred to that, and that savings that it was referring to is the savings that come from the other aspects of Project Pronto like the

replacement of circuit switch tandem switches with ATM switches. Those maintenance savings were not just the Litespan NGDLC platform that we are talking about right now.

Q. Well, all I am trying to get you to agree is that your own company has said that it's a lot cheaper to maintain fiber than copper; isn't that true?

A. That's a generally correct statement. But, again, it's not -- you still have to plug maintenance into the overall economic equation, you know, first cost and then ongoing maintenance. And it varies by, you know, outside plant job by outside plant job.

Q. Wouldn't it be even cheaper for SBC to deploy Pronto and to take out of service all the existing home run feeder cables that now serve those DAs?

A. Well, again there is an economic equation

20 involved. I mean, if you are talking about --
21 Q. This is a simple one, isn't it?
22 A. Well, no. If you are talking about just

1 looking at one cost which is ongoing maintenance of
2 cable, you could say -- you could draw the conclusion,
3 yes, that would be cheaper. But you also have in the
4 equation to decide whether to do that or not what you
5 have to buy in terms of new fiber, the expense you are
6 going to incur working customers off of existing
7 copper to new fiber, and most importantly, very much
8 most importantly, the electronics at the end of those
9 fibers are very costly. So if you just ask me about
10 maintenance of cable, yes, fiber maintenance is less
11 expensive than copper maintenance. But you cannot
12 just wholesale replace an existing copper network
13 based on that one cost factor, because you have to
14 build the capacity on the fiber with the electronics

at the ends to light it in order to be able to do that.

Q. I thought we were talking right now about bringing high bandwidth services to people who now have, at best, dial out modems over wire pairs?

A. That's what the overlay deployment of Project Pronto is attempting to accomplish.

Q. So if you roll all those existing voice

or modem customers over to Pronto, you are rolling a bunch of 64K channels across, right?

A. I don't understand the last part of your question.

Q. You are rolling a bunch of voice-grade channels over of copper onto the Pronto band, right?

A. If those end users subscribe to DSL, right, but not otherwise.

Q. I want you to assume the context here is,

isn't it by definition a lot cheaper to maintain one feeder plant network instead of two, that is, one Project Pronto-based feeder network instead of an overlay front?

MR. BINNIG: I will object to the question as being asked and answered.

EXAMINER WOODS: I don't think that one was.

A. I guess what -- if you are saying, if you are talking about maintenance expenses only, like maintenance of two networks versus one, the one being fiber, you still have before you as a business to decide to do something like that, in other words, replace all that copper network and the end users that

are -- and there still are POTS-only end users or ISDN users only on that copper network, then you have to factor in all the additional costs that are required

to do that, as I explained just a minute ago. So you will not -- SBC will not make a decision based on just cable maintenance of two networks versus one or fiber versus copper. It will look at all the related costs.

Q. Wouldn't it be cheaper -- again, isn't the common way to analyze these kinds of decisions on a present net value basis?

A. That's a very common way to do that.

Q. That's how SBC does that?

A. Yes.

Q. That's how it analized the Pronto investment, isn't it?

A. To my understanding that's how. I did not do that analysis, but I understand they did do that.

Q. Isn't it cheaper on a net value or woudn't it be cheaper on a net value basis to retire the copper and retire the existing copper feeder plant that now serves the DAs, that Pronto could serve,

everything being considered, isn't it a better net present value to just retire the copper?

A. I don't know. I haven't done that analysis.

Q. When you use the term "retire," do you mean remove or simply take out of service and leave in place?

A. Well, it could be either, depending on the situation. If it's in conduit, you would literally remove it to reclaim the conduit duct. If it's buried, you would take it off the books, take service off of it, and probably leave it in place.

Q. Okay. Fair enough. Now, you see the five situations on page 7 where you could actually retire -- remove or not -- but retire that existing copper facilities?

A. Yes, I do.

Q. Number one is cables that can't continue to provide adequate levels of service; do you see that?

A. Yes, I do.

22 Q. What's that mean in English? That is you

1 can't make an ATV loop out of it or what?
2 A. It just means if the cable is wet and you
3 can't keep pressure on it and you can't maintain your
4 quality of service even for POTS.
5 Q. What quality of service?
6 A. Well, I guess I am referring in my
7 example to just POTS service.
8 Q. ATV loops?
9 A. Oh, yes, I'm sorry. That's what you
10 asked a minute ago. Yes, that's correct.
11 Q. Now number two says cables that have
12 become uneconomical to maintain. And that one caught
13 my eye, Mr. Lube. What's the possibility, do you
14 think, that given your answer that fiber is cheaper to
15 maintain than copper that in, say, October of 2003
16 Ameritech will announce that, well, existing copper

cables are no longer economical to maintain because fiber cables are cheaper so we are talking them out of service?

A. The decision to take a cable out of service for the reason of being uneconomical to maintain will look at more than just the maintenance

cost of maintaining that copper. It will also look at what is the cost of the facilities, including electronics required to replace the services that are on that cable today.

Q. Fair enough. So it would be possible for SBC, under the conditions you have described here, the limitations that apply to you as of October of 2003, to do a new net present value of analysis and if it came up with a better net present value for Pronto-only architecture, that could be -- that could

meet condition number two, that is, that the copper is no longer economical to maintain; isn't that fair?

A. It could. But let me add to this, though. Normally, that condition is talking about not just a normal copper cable out there and just the normal maintenance required for that. We are talking about a cable that requires an undue and much greater than normal amount of maintenance to keep it operational.

Q. But sitting here today, the best we can expect in terms of a guarantee basis is the copper will be there until September 2003; is that right?

A. That's what's in the commitments.

Q. Okay. All right. And is there any commitment at all in terms of any percentage of copper available after the September 2003 time period?

A. No, sir, there were none in the FCC's order.

Q. And you had not made any voluntary commitments prior to the FCC capturing those as conditions, had you, beyond September of 2003?

A. Not to my knowledge.

Q. That's about the time that Pronto deployment is complete, isn't it?

A. It was a three-year roll-out. I believe that included -- I believe the Pronto roll-out is 2002 for its initial three years. It would be 2000, 2001, 2002, and this commitment goes through September of 2003. So, no, I don't think they align.

Q. So it's shortly after the Project Pronto Phase 1 is completed, right?

A. Well, perhaps almost a year after.

Q. What about Phase 2, in that second and third year?

A. I'm not sure what the exact date on that will turn out to be. There are goals there that are set.

Q. That goes beyond the Phase 1 ending, doesn't it, the Phase 2?

A. Yes, but I'm not as familiar with the Phase 2 goals and dates as I am what we are deploying right now.

Q. But it does involve second and third year sets, right?

A. I understand that those have been looked at as part of the roll-out. I don't know for what year.

Q. Okay. Now, on page 9 and 10 of your rebuttal, you are responding to Mr. Riolo and I think you guys are agreeing on two out of three. Do you see that at page 9 of 10?

A. Yes, I do.

Q. You and Mr. Riolo both agree, I take it, then that the Pronto DLCs will be -- will include upgrades and supplements to existing non-DSL capable DLCs, right?

A. Yes, that's correct.

Q. But you differ with him when he says they would replace; is that right?

A. To the extent that replace is different than upgrade, I disagree with him.

Q. Okay. So does that mean you are going to leave all of the old DLCs in place forever?

A. Of course not. What that means is, as a direct result of Project Pronto, we have no plans to go out and begin a routine removal program or replacement program of non-NGDLC RTs. If there are reasons that they need to be taken out, then they will be. But there are no other reasons besides Pronto.

Q. You aren't going to say that you would refuse to replace those even if it made sense to do so for other reasons?

A. That's correct. I was not trying to say

that. That's why I say as a result of Pronto on page 7 of 10, lines 5 and 6.

Q. Let's turn back to page 15 and 16. And here you have donned the regulatory FCC interpretive mantle. I am talking about packet switching, okay?

A. Yes, sir.

Q. You aren't trying to hide behind the packet switching definition to say that you shouldn't have to unbundle Pronto, are you?

A. Some CLECs --

MR. BINNIG: I am going to object to the characterization of the question.

MR. BOWEN: I will restate.

Q. You aren't trying to rely on the definition of packet switching to use as the basis to claim that Pronto shouldn't be unbundled because it involved ATM cells, are you?

A. I would say that that is part of our

overall reasoning, because CLECs have raised the issue that this is packet switching, and as the FCC described in its UNE Remand Order in Paragraph 313, there are specific conditions that, if they all exist, then packet switching must be unbundled. And I guess what I was trying to say a minute ago is, there are some CLECs that have said, ah ha, this applies to Project Pronto, therefore, you must unbundle it. So in response to those beliefs of CLECs generally, I

have addressed why this is packet switching but why it is not required to be unbundled per the FCC's UNE Remand Order.

Q. Okay. And if you look at page 16 and 17, after you cited the FCC's packet switching conditions for unbundling, you are saying those conditions don't apply to Pronto, right?

A. I said they will not normally exist in our network, including Pronto facilities.

Q. Okay. And the third reason on page 17 that the conditions aren't met, is that you aren't deploying the packet switching equipment for your own end users and, therefore, you don't have to unbundle them. Did I read that correctly?

A. Well, yes, sir, because that third reason applies to the fourth condition defined by the FCC which I show on page 16 at lines 15 and 16 where it says the incumbent LEC has deployed packet switching capability for its own use.

Q. I take it that you don't include subsidiary companies like AADS in the own-use definition; is that fair?

330

A. That's very fair because they are a CLEC just like Rhythms.

Q. So we should be able to get whatever they get in terms of dealing with Ameritech; is that right?

A. Yes, sir. And Ms. Chapman will be able to address that for you in great detail.

Q. Do you think that would include, for example, access to whatever OSS access AADS gets, we should get, too?

A. That would be my understanding. It's supposed to be on the same terms, conditions.

Q. Okay. But what you are saying, if I understand your logic here, is that because you are not at the point of deploying packet switching equipment for your own retail end user use but instead you are going to deploy it for our use, we can't use it as a UNE?

A. Well --

Q. Because we are getting it as the Broadband Service; is that the implication?

A. Yes, sir, that's my position because that was one of the conditions established by the FCC in

the UNE Remand Order.

Q. Okay. Let's talk about collocation of line cards and the non-piece of equipment assertion you are making in your testimony.

A. Yes, sir, that's correct.

Q. You do say that; is that correct?

A. I say it's not a piece of equipment that meets the collocation standards established by the FCC.

Q. Where does the FCC say explicitly that you can only collocate a piece of equipment. What order said that?

A. I don't believe it said that, Mr. Bowen. But I believe all it has said is these are the types of equipment that would be collocatible equipment, and none of those types of equipment even closely resemble a single plug-in card that plugs into an overall piece of equipment.

Q. Okay. Now, you are talking and you cited

FCC orders that go back to the 1982 or '92, right, for support for that assertion? '92.

A. Yes, sir, the expanded interconnection

order.

Q. Well, do you think the FCC knew about the existence of ADLU line cards in '92 when it reached that decision?

A. No, sir, but there were plug-in cards when they reached that decision. The ADLU card is not the first plug-in card that's ever come along.

Q. So I understand your testimony correctly, you are saying that, because the card is not -- to use your term on page 18, line 4 -- the card is not a complete item of equipment, that that precludes it being considered as collocatible; is that right? You

aren't saying the FCC said that; you are saying that?

A. I am saying, based on the examples that the FCC provided in multiple orders, then it would not be eligible to be collocated for that reason. And in addition to that, the reasons that it does not provide access to a UNE or provide interconnection of two networks for the exchange of traffic.

Q. Let's take it one at a time. I just want to deal with it's not a complete piece of equipment part first. Can we do that?

A. Yes, sir.

Q. We will get to the interconnection and access piece as well. But am I correct, just so I understand this, what you are saying, you are agreeing the FCC has never said you can't collocate an ADLU card, right?

A. I have not ever seen where it specifically said that. It's just never specified anything that's that much of a subcomponent of a piece of equipment. In fact, it talks in terms of floor space, and it's kind of difficult to talk about the floor space required for an ADLU card.

Q. Well, you know that Rhythms and the other CLECs have made this assertion to the FCC and elsewhere for awhile now, right?

A. Yes, sir, that's correct.

Q. Did you ever ask the FCC for clarification about whether it was okay to collocate or to consider cards as collocatible equipment?

A. I believe the CLECs were doing a very good job of asking the FCC that question.

Q. No. Did the SBC ask the FCC that

question?

A. I don't think we did, but I don't believe we would have needed to because the question was already posed to the FCC by the CLEC community.

Q. So you agree it's a pending issue before the FCC?

A. I'm trying to recall if that's -- I think that is specifically in either the second or the fifth further notice that's in progress right now.

Q. The one where comments were filed last week?

A. Yes, sir.

Q. And I take it that all the definitions that you are citing about what kind of equipment by example can be collocated, all of those are pre-Project Pronto; aren't they?

A. I'm not sure what you mean by pre-Project Pronto.

Q. Well, if you look at page 19, you have got some more citations from the FCC orders about collocation?

A. Yes, I do.

Q. Those are -- the order that has those definitions in there pre=dates Project Pronto, doesn't it?

A. Yes, I think it actually, as far as when the FCC released it, I think it does. But, again, plug-in units have been around for a long, long time. And it's -- you know, the FCC has had ample opportunity in all of these past rules and decisions that it has rendered to include individual plug-ins if they had so seen fit to do that. And they have not seen fit to do that.

Q. Well, nobody ever asked them to before, did they?

A. I don't know whether they have or not.

Q. SBC hasn't asked them, have they?

A. SBC would have had no reason to ask them.

Q. All right. So let's talk again about